```java
//dsbda 12
//SalesMapper.java
package SalesCountry;

import java.io.IOException;

import org.apache.hadoop.io.IntWritable;
import org.apache.hadoop.io.LongWritable;
import org.apache.hadoop.io.Text;
import org.apache.hadoop.mapred.*;

public class SalesMapper extends MapReduceBase implements Mapper<LongWritable, Text, Text,
IntWritable> {
    private final static IntWritable one = new IntWritable(1);

    public void map(LongWritable key, Text value, OutputCollector<Text, IntWritable>
output, Reporter reporter) throws IOException {

        String valueString = value.toString();
        String[] SingleCountryData = valueString.split(",");
        output.collect(new Text(SingleCountryData[7]), one);
    }
}



//SalesCountryReducer.java
package SalesCountry;

import java.io.IOException;
import java.util.*;

import org.apache.hadoop.io.IntWritable;
import org.apache.hadoop.io.Text;
import org.apache.hadoop.mapred.*;

public class SalesCountryReducer extends MapReduceBase implements Reducer<Text,
IntWritable, Text, IntWritable> {

    public void reduce(Text t_key, Iterator<IntWritable> values,
OutputCollector<Text,IntWritable> output, Reporter reporter) throws IOException {
        Text key = t_key;
        int frequencyForCountry = 0;
        while (values.hasNext()) {
            // replace type of value with the actual type of our value
            IntWritable value = (IntWritable) values.next();
            frequencyForCountry += value.get();

        }
        output.collect(key, new IntWritable(frequencyForCountry));
    }
}
```

```java
//SAlesCountryDriver.java

package SalesCountry;

import org.apache.hadoop.fs.Path;
import org.apache.hadoop.io.*;
import org.apache.hadoop.mapred.*;

public class SalesCountryDriver {
    public static void main(String[] args) {
        JobClient my_client = new JobClient();
        // Create a configuration object for the job
        JobConf job_conf = new JobConf(SalesCountryDriver.class);

        // Set a name of the Job
        job_conf.setJobName("SalePerCountry");

        // Specify data type of output key and value
        job_conf.setOutputKeyClass(Text.class);
        job_conf.setOutputValueClass(IntWritable.class);

        // Specify names of Mapper and Reducer Class
        job_conf.setMapperClass(SalesCountry.SalesMapper.class);
        job_conf.setReducerClass(SalesCountry.SalesCountryReducer.class);

        // Specify formats of the data type of Input and output
        job_conf.setInputFormat(TextInputFormat.class);
        job_conf.setOutputFormat(TextOutputFormat.class);

        // Set input and output directories using command line arguments,
        //arg[0] = name of input directory on HDFS, and arg[1] =  name of output directory
to be created to store the output file.

        FileInputFormat.setInputPaths(job_conf, new Path(args[0]));
        FileOutputFormat.setOutputPath(job_conf, new Path(args[1]));

        my_client.setConf(job_conf);
        try {
            // Run the job
            JobClient.runJob(job_conf);
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```

Screenshot 1

Ubuntu 64-bit for SL-6 - VMware Workstation 15 Player (Non-commercial use only)

Player

Activities   Firefox Web Browser   Feb 18 21:35

Browsing HDFS

localhost:50070/explorer.html#/

Hadoop   Overview   Datanodes   Datanode Volume Failures   Snapshot   Startup Progress   Utilities

Browse Directory

/   Go!

Show 25 entries   Search:

	Permission	Owner	Group	Size	Last Modified	Replication	Block Size	Name	
☐	drwxr-xr-x	hduser	supergroup	0 B	Feb 18 06:03	0	0 B	input3000	🗑
☐	drwxr-xr-x	hduser	supergroup	0 B	Feb 17 23:22	0	0 B	inputfiles	🗑
☐	drwxr-xr-x	hduser	supergroup	0 B	Feb 18 06:05	0	0 B	output3000	🗑
☐	drwxr-xr-x	hduser	supergroup	0 B	Feb 17 23:34	0	0 B	outputfiles	🗑
☐	drwx------	hduser	supergroup	0 B	Feb 17 23:20	0	0 B	tmp	🗑

Showing 1 to 5 of 5 entries   Previous 1 Next

Hadoop, 2017.

Type here to search   11:05 AM ENG 19-02-2021

Screenshot 2

Ubuntu 64-bit for SL-6 - VMware Workstation 15 Player (Non-commercial use only)

Player

Activities   Firefox Web Browser   Feb 18 21:37

Browsing HDFS

localhost:50070/explorer.html#/outputfiles

Hadoop   Overview   Datanodes   Datanode Volume Failures   Snapshot   Startup Progress   Utilities

Browse Directory

/outputfiles   Go!

Show 25 entries   Search:

	Permission	Owner	Group	Size	Last Modified	Replication	Block Size	Name	
☐	-rw-r--r--	hduser	supergroup	0 B	Feb 17 23:34	1	128 MB	_SUCCESS	🗑
☐	-rw-r--r--	hduser	supergroup	661 B	Feb 17 23:34	1	128 MB	part-00000	🗑

Showing 1 to 2 of 2 entries   Previous 1 Next

Hadoop, 2017.

Type here to search   11:07 AM ENG 19-02-2021